

Where to Draw the Line between Air and Land Battle

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ADDRESSING THE services' congressionally mandated Roles and Missions review, Gen Merrill A. McPeak, at the time chief of staff of the Air Force, suggested that modern land warfare contains

four "battles"--the *rear battle*, which includes base and supporting elements, the *close battle*, where the main opposing ground forces engage one another, the *deep battle*, incorporating hostile territory well beyond the line of contact, and the *high battle*, the area of air and space combat.¹

He proposed a division of responsibility between these areas on the battlefield where the ground forces commander would fight the close and rear battles, while the air forces commander would fight the deep and high battles.

General McPeak went on to say that

the commander with responsibility for the close battle does not require systems or capabilities that reach across the boundaries into the deep and high battles. If there are such systems in the field or on the drawing board, they might be good candidates for retirement or transfer to another service. Alternatively, the commander with responsibility for the deep battle does not need forces that are configured for direct support of close combat operations. If there are any, they too could be transferred or cut.²

General McPeak has suggested that commanders should have full command authority and ownership of the assets used in their respective battle areas. If adopted, this concept would give the Army responsibility for its own close support, eliminating close air support as an Air Force primary function.³ This proposed arrangement would be similar to the close-air-support concept of operations practiced by the Marine Corps. Needless to say, General McPeak's suggestions have stoked old flames of debate between the air and land services.

The Army has questioned the Air Force's sincerity about providing air support since World War I, when the airplane gained its importance as a new weapon of warfare. Ground commanders saw the chief task of the Air Force as support for the ground forces. Army field service regulations in effect when the United States entered World War I stated, "The infantry is the principal and most important arm, which is charged with the main work on the field of battle and decides the final issue of combat. The role of the infantry . . . is the role of the entire force. . . ."⁴

While the infantry got bogged down in the trenches in World War I, advances in weapons technology and doctrine for employment, including that for the airplane, began to demonstrate revolutionary capabilities for warfare. Airmen believed airpower should be concentrated instead of divided evenly between individual ground commanders.

It was the Germans who first effectively demonstrated what massed airpower could do. During their great offensive of March 1918, they concentrated some 300 aircraft for

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direct support of the ground advance. . . . Control of the air having been quickly gained, they were able to harass the movement of troops with virtually no interference.⁵

A German instruction on "The Employment of Battle Flights," . . . described battle aircraft as "a powerful weapon which should be employed at the *decisive* point of the attack. . . . They are not to be distributed singly over the whole front of the attack, but should be concentrated at decisive points. Less important sectors must dispense with the support of battle flights."⁶

The idea of concentrating airpower should not have been a revelation. It was merely a practical application of one time-honored principle of war-mass.⁷ Air leaders further argued that not only should airpower be concentrated for decisive results, but control should be vested in an air commander who understands the capabilities and limitations of airpower. Although Army officers disagreed with this concept, airmen saw it as nothing more than following another principle of war-unity of command.⁸

After learning from the success the Germans were having with concentrated "battle flights," the American Air Service commander, Gen William ("Billy") Mitchell, convinced Gen John J. Pershing, commander of the Allied Expeditionary Force, to "concentrate (air) units from various ground commands into a powerful unified force...controlled by him (Mitchell)."⁹ Although "obtaining such strength had not been easy, for he had to meet the resistance of ground commanders who wanted the air units elsewhere...his work at Saint-Mihiel and the Argonne were landmarks in the development of airpower and the doctrine of employment."¹⁰

Following World War I, General Mitchell was already predicting the decisiveness of airpower, stating he was "sure that if the war lasted, air power would decide it."¹¹ General Mitchell "believed that for any given operation, available air units should be placed under the control of an Air Service commander. This air officer, having received the over-all plan of an operation from the superior command, would proceed to draw an appropriate air plan."¹² At the same time, however, the Army concluded that "aviation must continue to be one of the auxiliaries of the principal arm, the infantry."¹³ In the middle of these two opposing views, two important lessons were recognized by all:

There were critical times, such as when one's front was ruptured, that required committing all available aircraft to land battle. The great battles of 1918 also demonstrated that centralized control of aviation could be as valuable in defensive warfare as in offensive operations.¹⁴

Nevertheless, "experiments in centralized command encountered opposition in the ground forces, particularly among the corps and army commanders, who wanted to retain direction over 'their' aviation."¹⁵

Thesis

The central issue became what airpower is best used for and who controls it. This debate has raged throughout every conflict since World War I, including Operation Desert Storm.¹⁶ This paper examines where to draw the line between air and land battle and who should control

operations on either side of that line. The focus is on designation of the fire support coordination line (FSCL), which traditionally delineates air and land operations, and similarly, the Air Force missions of interdiction and close air support.

The Air Force defines its roles as aerospace control, force application, force enhancement, and force support.¹⁷ This paper does not examine the Air Force roles of aerospace control (General McPeak's high battle), force enhancement, or force support (General McPeak's rear battle). Nor does it cover the force-application mission of strategic attack, which along with interdiction, comprises the deep battle. The main emphasis is on the seam between the remaining two force-application missions of interdiction and close air support.

The thesis is that, with modification, the FSCL can provide an appropriate mechanism to divide responsibilities between air and land commanders. The doctrinal definition for the FSCL needs to change to accommodate more air commander involvement for its placement. Basically, Air Force responsibilities for interdiction and close air support require no change. What is needed is more trust and understanding between joint service components.

Air and Land Delineation

The first question to answer is, Do we need a line at all to segregate service responsibilities for different geographic areas in a theater of operations? Why not just give all the forces to the joint force commander (JFC) to fight the war as he sees fit? In a sense, that is exactly what happens. The JFC has ultimate responsibility and command authority for military operations in his area of responsibility.¹⁸

However, even a JFC's area of responsibility is bounded by distinct lines separating adjacent areas of responsibility. Geographic delineation provides *unity of command* for areas containing broad, continuing missions.¹⁹ The unified commanders and their staffs are theater experts, attuned to the threats and employment of combat forces within their respective areas. Recognizing the uniqueness of each geographic theater, individual unified commands are best prepared to conduct warfare within their own areas of responsibility, but not in adjacent areas.

Similarly, air and surface components are experts in the employment of combat forces in their particular medium. Air, land, and sea combat are all starkly different, and the members of these components spend the majority of their careers honing the skills of their respective professions. Just as unpalatable as it would be for a ground commander to acquiesce authority for fire and maneuver of his forces to an airman, it is equally unacceptable to airmen for a ground commander to presume control of airpower.

However, Army training and doctrine today still consider the chief task of airpower is to support sustained land operations, which it considers the *decisive* combat element.²⁰ One of the tenets of Army operations is *depth*, defined as

the extension of operations in time, space, resources, and purpose. . . . What is most important...is the fact that in any operation the Army must have the ability to gain information and influence operations throughout the depth of the battlefield. This ability highlights the joint nature of deep operations, which means participation by the other

services.²¹

Clearly, Army doctrine does not intend to draw an arbitrary line to delineate close and deep battle and abdicate responsibility for deep battle to the air component commander. The problem is, even though Army doctrine espouses control of the battlefield at depth, traditionally ground commanders are

far more concerned with the battle immediately in front of them than they are on threats and forces deeper behind enemy lines; this is a dangerous fixation, for in at least two well-known cases-the fall of France in 1940, and Kasserine in 1943-it contributed to notable defeats.²²

It was prescribed at the time that tactical air was to be used for the immediate and direct support of ground forces, that the mission of the air arm was the mission of the ground forces, and that ordinary tactical air units would be under ground commanders. Under such a philosophy of air operations, the air campaign during late 1942 and early 1943 in North Africa proved to be a model of inefficiency.²³

Consequently, in the aftermath of the battle at Kasserine Pass, American airpower was placed under centralized control of airmen.²⁴ Ensuing doctrine stated:

Land power and air power are co-equal and interdependent forces; neither is an auxiliary of the other...control of available air power must be centralized and command must be exercised through the air force commander if this inherent flexibility and ability to deliver a decisive blow are to be fully exploited.²⁵

Conversely, current Marine Corps doctrine subjugates its airpower to a supporting role. In addition to discussing close air support to support the ground forces, the Marines refer to the Air Force mission of interdiction as deep air support.²⁶ The Marine Corps concept of operations is for independent Marine air ground task force (MAGTF) employment using its organic combined arms, which includes its supporting air component.

Considering Army Air Corps history and Marine Corps doctrine, one can imagine that airpower would be employed quite differently if exclusive control was given to ground components. In North Africa during World War II, "Air operations reflected an addiction of Army commanders for protective umbrellas and a singular lack of understanding of both the capabilities and limitations of airpower."²⁷ Even in Desert Storm, the confrontation between the Army field commanders and the Air Force was not so much about the performance of airpower as the Army's ability to control it. As the Air Force saw it, the Gulf War was a model for future conflicts. But neither the Army nor the Marines wanted to go to war that way again.²⁸

The ground components' concept for employment of airpower is understandable, given one's primary concern is for the battle raging around him. It is far easier to appreciate the effects of airpower when one sees enemy forces he is engaged with destroyed by air attack rather than be told that the bridge providing resupply to those same forces has just been destroyed by air attack. In a letter to Gen George C. Marshall, Brig Gen Paul M. Robinett reflected the prevalent opinion held by most ground commanders in Tunisia during World War II:

What was needed were not reports or photographs of ships being sunk, ports being smashed, or cities being bombed to ashes, but seeing Allied aircraft over their front-line positions and attacking targets in the path of Allied operations. . . . To them, the only way to achieve such results was by placing aircraft under ground force command.²⁹

A similar analogy can be drawn from the airman's perspective. A fighter pilot about to engage a large enemy formation of aircraft would much rather have the Army's surface-to-air missiles be targeted against higher-threat enemy fighters than less maneuverable bombers. In this case, the most effective use of surface-to-air missiles is against enemy bombers, which present the greatest threat to the joint force as a whole. However, even though the priority for defensive counter air is to preclude the bomber from reaching its target, which may even be the fighter pilot's home airfield, a certain immediacy exists in the heat of battle when one's very survival is at risk.

The emotion of ground combat begs for every available asset to support the present battle. This is evident in Army doctrine, which seeks

to apply overwhelming combat power to achieve victory at minimal cost....Overwhelming combat power is achieved when all combat elements are violently brought to bear quickly, giving the enemy no opportunity to respond with coordinated or effective opposition.³⁰

The Army plans to sequence all combat elements for decisive land engagement. "Many other operations lead to or support decisive operations. For example, two supporting ground battles, an interdiction operation, and a deception operation could all support a separate decisive ground battle."³¹ The Army's preoccupation with the decisiveness of ground battle, relegating other combat elements to supporting roles, tends to shorten its perspective of depth to the close battle. This short-sightedness was still prevalent in Desert Storm, where "the ground generals who controlled the war-Schwarzkopf and Powell-were not inclined to accept the notion that an invading army could be destroyed from the air."³²

Conversely, Air Force doctrine states, "Aerospace control normally should be the first priority of aerospace forces."³³ After aerospace control and strategic attack, the Air Force sees the most effective force-application roles progressively diminishing from the deep battle (interdiction) to the close battle (close air support).³⁴ However, Air Force doctrine still embodies the important lessons from World War I: "Although close air support is the least efficient application of aerospace forces, at times it may be the most critical by ensuring the success or survival of surface forces."³⁵

Fire Support Coordination Line

With the Army focus on the close battle and the Air Force's on the deep battle, it seems only natural to delineate responsibility for these battles. The separate services are best trained and equipped to fight these respective battles and are likewise ill-prepared to perform other than supporting roles outside their areas of expertise. The argument so far is wholly consistent with General McPeak's proposal to delineate responsibilities for close and deep battles. What General

McPeak has not addressed is where to draw that line.

Traditionally, the line that separates close and deep battle is the FSCL. Joint service doctrine defines the FSCL as follows:

A line established by the appropriate ground commander to insure coordination of fire not under his control but which may affect current tactical operations. The fire support coordination line is used to coordinate fires of air, ground or sea weapons systems using any type of ammunition against surface targets. The fire support coordination line should follow well-defined terrain features. The establishment of the fire support coordination line must be coordinated with the appropriate tactical air commander and other supporting elements. Supporting elements may attack targets forward of the fire support coordination line without prior coordination with the ground force commander provided the attack will not produce adverse surface effects on or to the rear of the line. Attacks against surface targets behind this line must be coordinated with the appropriate ground force commander. Also called FSCL.³⁶

The Air Force interprets the FSCL as a *restrictive* measure where air attacks inside the line need to be controlled by the appropriate ground commander and attacks beyond the line need to be controlled by the air component commander. During Operation Desert Storm, coalition aircraft operating inside the FSCL "could only attack under direction from ground or airborne controllers. As the . . . corollary to this rule, helicopters and tactical missiles beyond the FSCL would be controlled by the JFACC (Joint force air component commander)."³⁷

The fact that fires inside the FSCL may affect current tactical operations suggests the FSCL will be placed in proximity to friendly surface forces. Also, the word *support* in fire *support* coordination line implies that those fires are supporting an ongoing close battle. Therefore, air-to-surface attacks inside the FSCL constitute the Air Force mission of close air support and are restricted by applicable measures. There is no argument concerning the need to restrict weapons employment inside the FSCL.

The Army, on the other hand, views the FSCL as a *permissive* measure. While the Army establishes a FSCL to coordinate fires of air, land, or sea weapons systems inside the line, fires beyond the FSCL do not affect current tactical operations and are therefore considered unrestricted.³⁸ The reason to restrict other components' fires inside the FSCL is to avoid fratricide by fires not under Army control.³⁹ The Army intends to engage targets beyond the FSCL and has some assets to do so, but coordination with air or sea components is not deemed necessary since there is little perceived risk of fratricide. In other words, targets beyond the FSCL are considered to be in a free-fire zone.

The Air Force disagrees. Simultaneous to the close battle, the Air Force is attacking targets in the deep battle before they come in contact with friendly surface forces. Therefore, fratricide is a valid reason to restrict fires beyond the FSCL, just as it is inside the FSCL. Friendly aircraft are attacking targets in airspace that unrestricted surface-to-surface ordnance flies through. Army doctrine recognizes "the highest probabilities of conflict between aircraft and indirectly delivered supporting fires occur . . . in the immediate vicinity of firing unit locations and target impact

areas. With the exception of these two areas, the probability of aircraft and indirect fire conflict is relatively low."⁴⁰ Not only fixed-wing aircraft operate beyond the FSCL, but helicopters as well. The big sky theory, suggesting an acceptable low probability of an artillery shell hitting a friendly aircraft, does not "fly" with airmen.

Joint doctrine provides contradictory guidance on whether the FSCL is *restrictive* or *permissive*. While the joint definition for the FSCL does not stipulate either restrictive or permissive, Joint Publication 3-0, *Doctrine for Joint Operations*, clouds the issue by saying that the

Fire Support Coordination Lines (FSCLs) are *permissive* fire support coordinating measures. . . . An associated benefit of employing an FSCL is the reduction in potential for fratricide. . . . Commanders employ restrictive measures to enhance the protection of friendly forces operating beyond the FSCL. (Emphasis added)⁴¹

Apparently, restrictive measures to prevent fratricide beyond the FSCL are an appropriate consideration for combat commanders. Another argument to restrict fires both inside and outside the FSCL is to avoid duplication of effort. Although striking a target with multiple service assets, hopefully for the airman not simultaneously, may increase the probability of success, it is not the most efficient use of resources. Uncoordinated multiservice attacks on the same target do not constitute the intent of joint warfare. "Joint and combined operations demand careful synchronization of operations to effect . . . mutual support, efficient use of all available resources, and the ultimate application of force to achieve the strategic purpose."⁴² Even if the Army maintains that the low probability of fratricide does not warrant restricting its ability to engage targets beyond the FSCL, efficient use of limited joint resources to avoid duplication of effort seems prudent.

The point is that some management tool is needed to separate areas where functional components have the preponderance of assets to employ, while they are not the primary force provider in adjacent areas. The FSCL is an appropriate *restrictive* measure to delineate close and deep battle responsibilities. What is key is a common understanding of the term. Fires inside the FSCL are clearly the purview of the ground component commander.⁴³ Operations beyond the FSCL do not directly affect the current tactical operations of the appropriate ground commander and should therefore be considered part of the deep battle.

Control

If the Army will accept that restrictive measures are appropriate beyond the FSCL, the next point of contention is who should control the deep battle. The Army believes it should "use deep operations to set the conditions for decisive future operations."⁴⁴ Ground commanders want control of all assets they consider necessary to accomplish the mission the JFC assigns them.

In conducting simultaneous attacks in depth, Army forces employ long-range, intelligence- acquisition and targeting assets, including electronic warfare and joint assets, to track enemy forces, to complicate their operations, and to determine the effects of our strikes in depth.⁴⁵

Combat experience shows the Army's focus on the close battle tends to shallow its perspective in

deep battle employment. Despite the lessons from two world wars, in Korea the Army's

idea of interdiction was to disrupt the enemy's lines of communication immediately behind the front. FEAF's (Far East Air Forces) Vice Commander for Operations, Maj. Gen. Otto P. Weyland, likened this to "trying to dam a stream at the bottom of a waterfall. . . . Aircraft were often directed to targets that were of dubious value or even nonexistent."⁴⁶

Besides the differing philosophy on how best to employ airpower, the Air Force also disagrees with the ground-oriented view that "fires, including aerial-delivered fires, exist for the purpose of supporting ground maneuver. The notion that ground maneuver can be used as a device to advance the range of airpower is decidedly absent."⁴⁷ While early air advocates argued that strategic attack from the air would decide the outcome of future conflicts, contemporary airmen believe that

we must rethink our positions on the role of airpower in modern war, for Desert Storm suggests that a new world situation has combined with new technologies to usher in a new era of warfare. . . . Because of airpower's superior speed and firepower, surface forces will at . . . times support the dominant air effort by seizing and holding airfields, suppressing enemy air defenses, or making the enemy vulnerable to air attack by flushing him from prepared positions.⁴⁸

Without getting bogged down in the controversy about the decisiveness of airpower, it is reasonable to say that airpower is capable of more than just a supporting role for land battle. The Air Force is the service best trained and equipped to fight the deep battle of a land-oriented conflict. Other services possessing assets with the range capable of engaging targets beyond the FSCL should play a supporting role to the primary air battle that is taking place.⁴⁹ Furthermore, since airmen have the most at stake, the air component commander should control the deep battle with supporting forces coordinating their activities to preclude fratricide and duplication of effort. "Historical experience indicates that the integration of different capabilities is likely to be more timely and responsive to changing conditions if those responsible for planning are also responsible for controlling execution."⁵⁰

Ground components need a better appreciation for the capability and competency of airmen and their employment of airpower.

Each of the Services has organized, trained, and equipped superbly competent forces whose ability to fight with devastating effectiveness in the air, on land, and at sea is the foundation on which successful joint action rests.

For the dedicated professional, building Service competence is an intense, lifelong affair.⁵¹

As ground components gain longer-range weapons such as the Army tactical missile system (ATACMS), and the ability to see deeper with Air Force systems like the joint surveillance target attack radar system (JSTARS) and space-based satellites, their interest in the deep battle increases correspondingly.⁵² Desire to retain control of organic assets and influence the desired

effects of interdiction is only natural. The underlying principle for establishing control is to retain unity of effort in an area where respective components have the preponderance of assets.⁵³

Again, the problem is twofold. First, there is a basic disagreement between the services on the efficacy of airpower. Ground components maintain that airpower used in operations other than close air support is just another means of support for the ultimate decisive land battle. The Air Force believes that airpower is not merely a means to an end, but an equal participant in accomplishing the theater commander's mission.⁵⁴ Second, ground commanders believe themselves best qualified to prepare the deep battlefield for the future close battle they may fight and they mistrust the Air Force's responsiveness to their desires.⁵⁵ Airmen contend that since predominantly air assets are being used, airmen are best qualified to employ resources in the deep battle.

The problem with the Army point of view is that the ground situation divides the theater into corps areas of responsibility. There will be several corps, or corps-equivalent, commanders with competing interests for the best use of limited theater assets not organic to a corps. A corps commander on one side of the theater may have few if any deep targets of interest coincident with his counterpart on the opposite side of the theater, let alone the corps commander adjacent to him. The situation in North Africa prior to Kasserine Pass exemplifies the potential consequences:

Major General Lloyd R. Fredendall, U.S. II Corps Commander with de facto control of the aircraft in XII Air Support Command . . . denied a request for air support from the French XIX Corps. . . . In consequence, while the French came under heavy Axis Assault, aircraft from the XII Air Support Command flew air cover for the U.S. 509th Parachute Regiment, with no enemy air or ground forces to attack in front of the Americans.⁵⁶

Each corps could exhaust all the available assets and still not fulfill its desired target requirements. This creates a situation in which no corps commander will ever be completely satisfied, which was still the case in Operation Desert Storm:

Amazingly, despite a distribution of targets made by an Army deputy CINC (Waller) using lists provided by ground force commanders, and approved overall by an Army theater CINC (Schwarzkopf himself), ground commanders still complained that they weren't getting sufficient air support!⁵⁷

"As many forces as the Army field commanders had at their disposal, they had a seemingly insatiable appetite for more."⁵⁸

The Army point of view ignores the second part of the primary lesson learned about the employment of airpower from World War I—that airpower needs to be centrally controlled.⁵⁹ Airpower is a theater asset unconstrained by geographic boundaries established between ground echelons. Airpower employment follows the same principles of war that apply to all the services, particularly *objective, mass, maneuver, and unity of command*.⁶⁰ Indeed, after the disaster at Kasserine Pass, Gen Dwight D. Eisenhower adopted the airpower doctrine advocated by Air Vice-Marshal Arthur Coningham. The resulting doctrine, used for the remainder of World War

II, became United States Air Force tactical air doctrine. Coningham's basic principles included:

- The strength of airpower lies in its flexibility and capacity for rapid concentration.
- It follows that control must be concentrated under command of an airman.
- Air forces must be concentrated in use and not dispersed in penny packets.⁶¹

In today's doctrine, centralized control of theater air assets is normally accomplished by designation of a JFACC.⁶² He takes guidance from the JFC on the priorities for limited theater air assets, expressed in the apportionment decision.⁶³ Assets employed beyond the FSCL support the deep battle and should be controlled by the JFACC. The JFACC interfaces with other component commanders, who provide appropriate liaison to the JFACC's staff.

Joint doctrine provides guidance on who should control interdiction, which together with close air support comprises the seam between the deep and close battles:

Commanders of air forces will most often possess the superior capability to execute interdiction. Such a commander will normally be designated the JFACC by the JFC and assigned the responsibility to conduct detailed execution planning and coordination of the overall interdiction effort.

Whoever is designated this responsibility must possess a sufficient command and control infrastructure, adequate facilities, and ready availability of joint planning expertise.

Whoever is responsible for joint execution planning is also responsible for ensuring unity of effort for interdiction execution. This includes deconfliction, coordination, control measures, and adjustments to the interdiction plan.⁶⁴

The . . . JFACC will . . . plan and execute the theater-wide interdiction effort.

The JFACC is normally the supported commander for air interdiction.⁶⁵

In major land operations, the Air Force normally has the preponderance of interdiction assets and the theater air control system to control interdiction. By designating a JFACC, the JFC ensures unity of command for the deep battle and can delegate responsibility for synchronizing theater assets to achieve his goals.

In addition, Department of Defense Directive 5100.1, *Functions of the Department of Defense and Its Major Components*, designates the Air Force as the only service tasked with interdiction as a primary function.⁶⁶ Finally, Operation Desert Storm results validate the fact that the Air Force is prepared to assume JFACC responsibilities and control interdiction.⁶⁷

Joint doctrine supports the Air Force view that the JFACC should control interdiction and apply whatever restrictive measures are necessary beyond the FSCL to prevent fratricide and duplication of effort. Synchronization of air and land components' respective deep and close battles produces the most dramatic effects on enemy surface forces.⁶⁸ Consequently, the JFACC should have an equal voice in placement of the FSCL.

FSCL Placement

The Air Force prefers to keep the line close to friendly ground forces in order to have better access to targets that are not immediately engaged but that may have a near-term effect. Over time, the Army has established the line farther and farther from the forward edge of the battle area.

In the late stages of the Korean War the "bomb line" was placed as little as 300 meters from the front line of troops. When the FSCL was placed beyond the Euphrates River, well in advance of friendly forces, in the last stage of DESERT STORM, this effectively created a sanctuary for Iraqi Republican Guard forces escaping the Allied advance.⁶⁹

"After the war, it became clear that the positioning of the boundary was one of the most important miscalculations in the final hours of the war."⁷⁰

It is false to assume that since all fires inside the FSCL require coordination with the appropriate ground commander, drawing the line farther out gives ground commanders control of more air assets. Actually, just the opposite is true. From the Air Force's perspective, air-to-surface attacks that may affect current tactical operations are sufficiently close to friendly forces as to warrant restrictive close-air-support measures. Therefore, air assets tasked to operate inside the FSCL are those allocated to close air support.⁷¹ Since theater apportionment determines the percentage of air assets dedicated to specific airpower missions, the number of aircraft apportioned to close air support remains the same but is responsible for covering a larger area.⁷² Establishing the FSCL farther from the forward edge of the battle area actually decreases the concentration of close air support, violating the principle of *mass*. The FSCL should be established as close to friendly ground forces as possible to get better concentration of fire power from assets apportioned to close air support. "The most reliable way to maximize the enemy's risk is to place the FSCL at the range where artillery and missiles stop being the greatest threat to the enemy and air attack becomes the greatest threat."⁷³

The "appropriate ground commander" that presently designates placement of the FSCL is each corps commander. As previously mentioned, theaters of operation are divided by multiple corps area boundaries. Independent designation of FSCLs within each corps area could result in a stair-stepped line across the width of the theater. The JFACC's input, derived with a theater perspective, will tend to smooth the FSCL, contributing to more effective air operations on both sides of the line.

The present doctrinal definition specifies that the appropriate ground commander will designate placement of the FSCL in coordination with "the appropriate tactical air commander and other supporting elements."⁷⁴ While this joint doctrine definition is consistent with Army doctrine, it ignores the significant theater air contribution in the deep battle, relegating airpower to a supporting role. In addition, the theater perspective of the JFACC necessitates his focus be at the *operational* rather than *tactical* level of war.⁷⁵ The joint doctrine definition for FSCL needs to reflect more of an Air Force perspective. Air-to-surface attacks inside the FSCL are close air support for surface forces. Attacks beyond the FSCL support the deep battle (interdiction).

Interdiction

Army and Air Force contention over conduct of the deep battle is basically over command and control of interdiction. For that reason, it is important to clarify what interdiction is, how it is accomplished, and how interdiction differs from close air support. Keep in mind that General McPeak has suggested that redundancy in this area can reduce defense spending.

Joint doctrine defines interdiction as "an action to divert, disrupt, delay or destroy the enemy's surface military potential before it can be used effectively against friendly forces."⁷⁶ Simply put, interdiction is an effort by one or more services to attack enemy personnel and resources before they engage in surface combat. It is desirable to interdict enemy forces as far from friendly forces as possible with the prioritized objectives to:

1. Destroy enemy forces before they can ever be used against friendly forces.
2. Limit the military potential of engaged enemy forces to a manageable level.
3. Control the time of engagement to that most advantageous to friendly surface forces.

Effective interdiction denies the enemy most of the tenets of Army doctrine—initiative, agility, depth, and synchronization, while allowing friendly forces to exploit these tenets.⁷⁷ Interdiction diverts enemy military potential from offensive to defensive operations required to protect his force and delays enemy capability to react to the friendly scheme of maneuver. Interdiction denies sanctuary to enemy forces separated from the close battle, thereby disrupting their arrangement for maximum combat effectiveness. Interdiction is a force multiplier that can give friendly surface forces a decisive advantage on the battlefield.⁷⁸

There are several key points that the interdiction definition provides. First, effective interdiction does not mandate destroying the enemy's military potential. Merely denying the enemy use of his military potential for a predetermined period of time can satisfy interdiction requirements.⁷⁹ The time required for friendly surface forces to defeat enemy lead elements and prepare for subsequent engagement with attrited follow-on forces could describe that period.⁸⁰

Second, the enemy's surface military potential includes surface forces, lines of communication, command and control networks, and combat supplies.⁸¹ Ideally, interdiction would prevent enemy forces from ever being used against friendly forces. Such was the case during Operation Desert Storm, when the Iraqi III Corps

attempted to prompt a ground war by launching attacks into Saudi Arabia from . . . southeastern Kuwait; the most prominent attack was against the Saudi Arabian town of Al Khafji. . . . Attempts to assemble Iraqi reinforcing columns in Kuwait were detected by a variety of night reconnaissance systems, including the newly arrived JSTARS . . . E-8 aircraft, and the columns were routed by air attacks. Having failed to precipitate a greater ground war, the Iraqis simply took to their defensive emplacements to await their fate.⁸²

Severing the lines of communication of engaged enemy surface forces can likewise render these

forces impotent by isolating them from their command and control architecture and denying them resupply.

An enemy that cannot move is vulnerable in fast-paced maneuver warfare, especially on a nonlinear battlefield. Creating a mobility advantage for friendly surface forces denies the enemy initiative and agility. Severing enemy lead elements from their command and control inhibits their ability to synchronize combined arms for decisive engagement. High consumption rates, especially when the enemy is forced on the defensive, demand excessive resupply efforts to continue as a combat-effective force.⁸³ Enemy forces without depth have lost their capability to resist, which is one of the ultimate objectives of warfare.⁸⁴

Finally, interdiction is defined by time rather than location-before the enemy's surface military potential can be used effectively against friendly forces. The time dimension is a relative concept and can be confusing. However, defining interdiction in terms of time is necessary since trying to determine a range at which the enemy's surface military potential can be used effectively is arbitrary and changes with acquisition of longer-range weapons.

What is actually of crucial importance in the planning of interdiction operations is time. It has, to be sure, usually been the case that interdiction closer to the front was designed to affect the battle over a shorter term than were actions deeper in the enemy's territory. But in the age of air power there is no necessary correlation between distance and relative immediacy of effects. A commander might, for example, order an attack on an airfield hundreds of miles behind the front because he had intelligence that an airborne assault was to be staged from it in a matter of hours.⁸⁵

Operation Desert Storm demonstrated another aspect of interdiction-its effectiveness in pursuit of a retreating enemy force. Pursuit of the Iraqi army

began after intelligence information indicated (and airborne aircraft had confirmed) that a general retreat of Iraqi forces was under way (evening of 25 February). From that time until the ceasefire at 8:00 a.m. local time on 28 February, the focus of air interdiction became one of pursuing and destroying the retreating army.⁸⁶

Interdiction is conducted at sufficient distance from friendly surface forces so as not to require detailed integration and coordination with surface commanders' maneuver and fire support.⁸⁷

This is not to say that interdiction is always independent of surface operations. In fact, if the closer enemy surface forces are to have a near-term effect on friendly forces, the more closely interdiction operations need to be coordinated with the surface scheme of maneuver.

The JFC determines the priorities for interdiction. If surface forces are not yet engaged, the focus may be to create a maneuver advantage for friendly forces. If they are outnumbered against echeloned forces, the interdiction focus may be on follow-on forces, sometimes referred to as attack of the second echelon. In some instances, the focus may be to interdict forces that have a near-term effect on friendly surface forces. The priority is theater-specific depending on the threat and the JFC's concept of operations.

The key to successful interdiction is to sequence actions against specific targets to produce

desired results. Once targets are identified, the best weapon systems to accomplish the objectives are selected. It is immaterial which service component provides the asset, as long as all the efforts are synchronized. Like strategic attack, interdiction is not limited to a particular type of target, the weapon system to be used against it, or its location on the battlefield. What defines interdiction is the desired effect-divert, disrupt, delay, or destroy the enemy's surface military potential before it can be used effectively against friendly forces.⁸⁸

Close Air Support

Interdiction in the deep battle is different from close air support in the close battle. Attacking enemy surface forces that have an immediate effect against friendly forces requires detailed integration or coordination with the fire and movement of friendly surface forces. Such actions are not interdiction, but close support for engaged surface forces. Joint doctrine defines close support as that

action of the supporting force against targets or objectives which are sufficiently near the supported force as to require detailed integration or coordination of the supporting action with the fire, movement, or other actions of the supported force.⁸⁹

Close support does not necessarily mean air support of ground forces. The definition is general enough to include potential surface force support for air forces in the deep battle.

Joint doctrine differentiates close air support as

air action by fixed- and rotary-wing aircraft against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces. Also called CAS.⁹⁰

Although generally the case, close air support does not have to occur inside the FSCL. Fixed- and rotary-wing aircraft could provide close air support for a special forces unit interdicting a bridge behind enemy lines. In this case, support is not for the close battle, but for the special forces conducting interdiction in the deep battle. Their operations need to be integrated with the supported air component commander conducting the deep battle.

The requirement for detailed integration or coordination with the fire or movement of friendly surface forces versus air forces differentiates close air support from interdiction.⁹¹ This requirement exists for two reasons-to prevent fratricide and to avoid duplication of effort. Detailed integration or coordination with the fire or movement of friendly surface forces is required when weapons employment will affect current tactical operations. If weapons employment does not affect current tactical operations, it is not close support, but interdiction-actions affecting enemy military potential before it can be brought to bear on friendly forces.⁹²

Conclusion

This article focuses on the delineation between the deep and close battles with respective control vested in air and land component commanders. The JFC has responsibility for all military operations inside his theater of operations. He divides areas of responsibility between functional

components to take advantage of service expertise and limit their span of control. While the theater is subdivided into separate corps areas of responsibility for the ground components, the air component is responsible for the airspace over the entire theater.

Just as the close battle is fought predominantly by surface components, the deep battle is fought by the air component. All services have assets that can support both close and deep battles. We need to mature away from the ground-oriented view that the deep battle is only a supporting activity for the ultimately decisive close battle. The deep battle is equally important to the success of the joint force as a whole. In fact, there may be times when the mission of the surface commanders' assets is to support the deep battle. A recent example is when "Army AH-64 Apaches helped destroy Iraqi air defense installations on the first night of the air campaign" during Operation Desert Storm.⁹³

The FSCL is an appropriate delineation between the deep and close battles. However, the definition needs to be modified to reflect equal importance between the deep and close battle and shared responsibility for designation between air and land component commanders. Air and land components need to recognize the FSCL as a restrictive control measure, regardless of which side one is operating on. Operations inside the FSCL require coordination with the appropriate ground commander while operations beyond the FSCL require coordination with the air component commander, who operates with a theater perspective at the operational level of war.

With respect to the focus of this article, operations beyond the FSCL are interdiction. All services have assets that can contribute to interdiction. The Air Force, however, has the preponderance of interdiction assets for sustained land warfare, in addition to the command, control, communications, and intelligence expertise to conduct an interdiction campaign. The emotion of land warfare necessitates that the Army's focus be on the close battle. Ground components should trust the Air Force to produce the most favorable conditions for success within the priorities established by the JFC. The JFC should delegate responsibility for the deep battle to a JFACC. Other components support the JFACC in accomplishing theater deep-battle objectives.

Operations inside the FSCL are close support for the appropriate ground commander. There may be times that all available assets are required to capitalize on or preclude a tenuous close-battle situation. The Air Force must be able to support the close battle consistent with the priorities determined by the JFC. Notice that this point of view differs from General McPeak's implication that close air support be eliminated as an Air Force mission.

In addition to a common definition, professional trust is necessary between the services so that each is not pursuing its own self-fulfilling aims but competently employing its combat power for the benefit of the joint force as a whole. Gen Charles A. Horner characterized his perspective of service cooperation as the JFACC during Operation Desert Storm as follows:

Trust was the key factor. Land, sea, air, and space were all sub-elements of the overall campaign; there was no room for *prima donnas*. You need people schooled in their own type of warfare, and then you need trust in each other.⁹⁴

The JFC determines the priorities when there is a conflict over use of limited theater assets. The

individual components employ their forces and support, and they are supported by other forces subservient to the theater objectives and priorities. The ultimate objective is to apply the military instrument of national power to achieve political objectives as quickly as possible with the most efficient expenditure of resources. Separating land and air responsibilities for close and deep battle to capitalize on service strengths contributes to this success.

Notes

1. Merrill A. McPeak, "Roles and Missions of the United States Air Force: The Allocation of Responsibilities," *Vital Speeches* 60 (1 September 1994): 684.
2. Ibid.
3. DOD Directive 5100.1, *Functions of the Department of Defense and Its Major Components* (Washington, D.C.: Department of Defense, 25 September 1987), 19.
4. War Department, Office of the Chief of Staff, *Field Service Regulations, United States Army*, 1914, corrected to 31 July 1918 (Washington, D.C.: Government Printing Office, 1918), 13.
5. Thomas H. Greer, *The Development of Air Doctrine in the Army Air Arm, 1917-1941* (Washington, D.C.: US Government Printing Office, 1985), 5.
6. Lee Kennett, "Developments to 1939," *Case Studies in the Development of Close Air Support*, ed. Benjamin Franklin Cooling (Washington, D.C.: US Government Printing Office, 1990), 19.
7. Joint Pub 1, *Joint Warfare of the US Armed Forces*, 11 November 1991, 21.
8. Ibid.
9. Greer, 5.
10. Ibid.
11. William Mitchell, *Memoirs of World War I* (New York: Random House, 1960), 267-68.
12. Greer, 6.
13. General Headquarters, American Expeditionary Forces, "Report of Superior Board on Organization and Tactics," ca. 1 July 1919, in House, *Department of Defense and Unification of Air Service: Hearings before the Committee on Military Affairs*, 69th Cong. , 1st sess., 1926, 952-53.
14. Kennett, 26.
15. Ibid.
16. Richard P. Hallion, *Storm over Iraq: Air Power and the Gulf War* (Washington, D.C.: Smithsonian Institution Press, 1992), 208.
17. Air Force Manual (AFM) 1-1, *Basic Aerospace Doctrine of the United States Air Force*,

March 1992, vol. 1, 7.

18. Joint Pub 0-2, *Unified Action Armed Forces* (UNAAF), 9 May 1994, III-4 to III-17.

19. Joint Pub 1-02, *Department of Defense Dictionary of Military and Associated Terms*, March 1994, 400.

20. FM 100-5, *Operations*, 14 June 1993, 1-4.

21. *Ibid.*, 2-7.

22. Hallion, 206.

23. Roswell Freedman, *The Evolution of Interdiction and CAS*, AWC Associate Programs text, 11th ed., vol. 2, chap. 12, 28.

24. David Syrett, "The Tunisian Campaign, 1942-43," in Cooling, 170.

25. War Department Field Manual 100-20, *Command and Employment of Air Power*, 21 July 1943, 1-2.

26. Fleet Marine Forces Manual (FMFM)-1, *Warfighting*, 6 March 1989, 76.

27. Freedman, 28.

28. Michael R. Gordon and Gen Bernard E. Trainor, *The Generals' War: The Inside Story of the Conflict in the Gulf* (Boston: Little, Brown and Company, 1995), 331.

29. Syrett, 165-67.

30. FM 100-5, 2-9.

31. *Ibid.*, 6-6.

32. Gordon and Trainor, 288.

33. AFM 1-1, vol. 1, 10.

34. *Ibid.*, vol. 2, 166.

35. *Ibid.*, vol. 1, 13.

36. Joint Pub 1-02, 146.

37. Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey Summary Report* (Maxwell Air Force Base, Ala.: Air University), 156-57.

38. *Ibid.*, 157.

39. AFM 1-1, vol. 2, 165.

40. FM 100-42, *USA/USAF Airspace Management in an Area of Operations*, 1 November 1976, 4-4.
41. Joint Pub 3-0, *Doctrine for Joint Operations*, September 1993, III-48 to III-49.
42. FM 100-5, 2-8.
43. Joint Pub 3-0, III-48 to III-49.
44. FM 100-5, 6-14.
45. Ibid.
46. Eduard Mark, *Aerial Interdiction: Air Power and the Land Battle in Three American Wars* (Washington, D.C.: Center for Air Force History, 1994), 274.
47. Harold R. Winton, "Reflections on the Air Force's New Manual," *Military Review*, November 1992, 31.
48. Phillip S. Meilinger, "Towards a New Airpower Lexicon-or-Interdiction: An Idea Whose Time Has Finally Gone?" *Airpower Journal* 7, no. 2 (Summer 1993): 47.
49. Deputy Chief of Staff, Plans and Operations, Headquarters United States Air Force, *JFACC Primer*, 2d ed. (Washington, D.C.: Headquarters USAF/XOXD, February 1994), 15.
50. Price T. Bingham, "Air Power and the Close-In Battle: The Need for Doctrinal Change," draft of paper prepared for March 1987 USAF Aerospace Power Symposium, Maxwell AFB, Alabama, 4.
51. Joint Pub 1, 7.
52. *JFACC Primer*, 33.
53. Joint Pub 1, 21.
54. AFM 1-1, vol. 1, 10.
55. Keaney and Cohen, 153.
56. Syrett, 167.
57. Hallion, 208.
58. Gordon and Trainor, 343.
59. Kennett, 26.
60. Joint Pub 1, 21.
61. Syrett, 174.

62. Joint Pub 3-0, *Doctrine for Joint Operations*, September 1993, GL-9.
63. *JFACC Primer*, 16-17.
64. Joint Pub 3-03, *Doctrine for Joint Interdiction Operations*, 11 December 1990, IV-2 to IV-3.
65. Joint Chiefs of Staff, *Joint Doctrine Capstone and Keystone Primer*, 15 July 1994, 33.
66. DOD Directive 5100.1, 19.
67. Keaney and Cohen, 116.
68. AFM 1-1, vol. 2, 165.
69. *JFACC Primer*, 34.
70. Gordon and Trainor, 412.
71. Keaney and Cohen, 157.
72. *JFACC Primer*, 16-17.
73. *Ibid.*, 34.
74. Joint Pub 1-02, 146.
75. AFM 1-1, vol. 2, 129-30.
76. Joint Pub 1-02, 192.
77. FM 100-5, 2-6 to 2-9.
78. Joint Pub 3-03, II-4.
79. AFM 1-1, vol. 2, 164.
80. *Ibid.*
81. *Ibid.*, 105.
82. Keaney and Cohen, 19.
83. FM 100-5, 2-18.
84. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1984), 75.
85. Mark, 3.
86. Keaney and Cohen, 112-13.
87. AFM 1-1, vol. 2, 105.

- 88. Ibid., 106.
 - 89. Joint Pub 1-02, 71.
 - 90. Ibid., 70.
 - 91. AFM 1-1, vol. 2, 105.
 - 92. Joint Pub 1-02, 192.
 - 93. Keaney and Cohen, 111.
 - 94. Joint Pub 1, 69.
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